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THE USE OF BEHAVIOR REHEARSAL TO TEACH
PHONE SKILLS TO DEVELOPMENTALLY DELAYED ADULTS

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MASTERS OF ART
CLINICAL PSYCHOLOGY

BY
JAMES FARTHING EFSTATION
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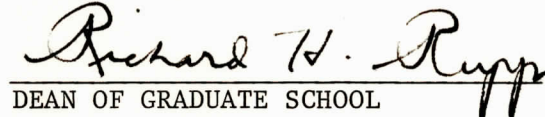
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MASTERS OF ARTS
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Abstract

This study attempted to determine what effect behavior rehearsal had on teaching phone skills to developmentally delayed individuals who attended the partial hospitalization program at Blue Ridge Mental Health Clinic. Sixteen adult subjects, six males and ten females, were given four thirty minute training sessions on phone skills using behavior rehearsal. Phone skills were broken into two components:

- 1) answering with "hello" and identifying self or location and
- 2) responding to the caller's question. Before and after training all subjects received four phone calls from the trainer. These calls measured the subject's response latency. The subjects also participated in mock phone trials with the trainer before and after training to measure their ability to perform the components of phone skills. Finally a rater rated the social effectiveness of taped phone calls made to all subjects after training. Results indicated that behavior rehearsal was successful in teaching phone skills as measured by ratings of mock phone calls ($p < .001$), however generalization was not demonstrated nor was there any difference in social effectiveness.

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Table of Contents

Abstract.	ii
Acknowledgements.iii
Table of Contents	iv
List of Tables.	v
List of Appendices.	vi
Introduction.	1
Method.	10
Results	15
Discussion.	15
References.	19
Appendices.	23

List of Tables

Table

1. Analysis of Variance of Points Earned on Mock Phone Calls Before Training.	33
2. Analysis of Variance of Response Latency Before Training.	34
3. Analysis of Variance of Points Earned on Mock Phone Calls After Training	36
4. Analysis of Variance of Response Latency After Training	37
5. Means and Standard Deviations of Points Earned on Mock Phone Trials, Response Latencies, and Ratings on Social Effectiveness.	16

List of Appendices

Appendix

A. Tally and Rater Sheets. 23

B. Copy of Approach to Gain Consent. 27

C. Consent Form. 30

D. Tables 1 and 2. 32

E. Tables 3 and 4. 35

Introduction

The use of behavior change techniques has increased rapidly in recent years (Kanfer and Phillips, 1970). Many persons in service delivery have taken issue with traditional approaches to therapy and training and are seeking utilization of more economical approaches (Goldstein and Sorcher, 1973; Sorcher and Goldstein, 1972). One such technique is behavior rehearsal. The term behavior rehearsal is sometimes used synonymously with role playing. The two procedures however differ in that role playing can be anything from role reversal to psychodrama while behavior rehearsal is restricted to the practicing of real life situations for the purpose of learning and acquiring new skills of interaction.

Case Studies

Lazarus (1969) demonstrated the effectiveness of behavior rehearsal in an experiment which compared behavior rehearsal with direct advice and non-directive reflection-interpretation. His results indicated that behavior rehearsal was about twice as effective as other approaches in helping clients learn to manage specific interpersonal problems. A criticism of this study was that Lazarus did training and evaluation which could have resulted in experimenter bias. In 1970, Wolpe published two clinical case studies which employed behavior rehearsal adapted from the Lazarus study. He also found behavior rehearsal to be an effective procedure to help clients deal more effectively with interpersonal conflict.

Use of Behavior Rehearsal to Teach Skill Acquisition

Davis (1972) equates behavior rehearsal with social imitation, but for the behavior therapist it is more aptly viewed as guided social imitation. It is the assumption of the behavior therapist utilizing behavior rehearsal that the individual is not experiencing social conflict due to inner conflict, but that the client has a deficiency of social skills which is causing his social inadequacy. While behavior rehearsal is not a catch-all or replacement for traditional therapy it does seem to be most appropriate in cases of skill deficiency. By rehearsing appropriate social behavioral responses it is assumed that the client will add to his repertoire appropriate skills which will help alleviate the conflict.

Behavior rehearsal has been used with a variety of populations to teach skill acquisition. Friedman (1970) used behavior rehearsal in a counseling program set up in a youth employment office to assist disadvantaged youth interested in employment. A number of studies have used behavior rehearsal with college populations particularly in the area of assertiveness training (Arnold and Dawley, 1973; Joanning, 1974; Kirschner, 1974; MacDonald, 1975). Use of behavior rehearsal has also been effectively used with a psychotic population (Leon, 1973; Wagner, 1968; Wagner, 1968; Bloomfield, 1973). Miller and King (1974) have developed an approach to sex education for adults called behavior rehearsal adult sex education (BRASE). In the area of marital relations, Eisler and Herson (1972) used behavior rehearsal working with married couples. Gittleman (1965) used behavior rehearsal for children who acted out because they were provoked by their parents. More recently

Minkin, Braukman, Minkin, Timbers, Fixsen, Phillips, Montrose (1976) investigated the components involved in communication skills. They isolated questions asked, providing feedback, and time spent talking as behavioral aspects of good communication and validated them. After validating the components, they used behavior rehearsal to teach the skills to female adolescents at Achievement Place, a residential group home for adolescents in Kansas (Phillips, 1968). Finally, Ashner and Phillips (1975) have created a procedure called guided behavior rehearsal in which they utilized trained non-professionals to act as guides for the socially handicapped client.

Issues of Methodology

One problem concerning the use of behavior rehearsal is that there is little consensus as to which methods constitute training in behavior rehearsal. McFall and Marston (1971) cite three major criticisms that have developed as a result of this problem. First, the behavior rehearsal treatment procedure is complex, unsystematic, and unstandardized relative to other behavioral techniques.

The basic component in behavior rehearsal is simple practice. However, to be able to practice a skill implies that the individual has the skill being practiced to begin with. Consequently the utilization of simple practice alone is not sufficient to teach skill acquisition. To teach skill acquisition, other components such as modeling, coaching, covert rehearsal, and praise have been combined with simple practice. However, there has not been any systematic method for deciding what components are most useful with behavior rehearsal. As a result,

behavior rehearsal could refer to any combination of the components mentioned.

Second, behavior rehearsal is applied to behavior classes that lack sufficient definition or specificity. For example, Lazarus compared the effectiveness of behavior rehearsal, non-directive therapy and advice to effect behavior change. The behavior being changed was general and the exact target behavior was never specified. A review of the literature indicates that behavior rehearsal has been used to attack general behavior classes such as assertiveness without breaking the broad behaviors into smaller components such as eye contact or voice tone.

Third, it is difficult to obtain satisfactorily reliable and objective laboratory and or real life measures of the behaviors typically treated with behavior rehearsal. In assessing the laboratory behavior, self report measures are used that are not reliable when working with loosely defined social behaviors such as assertiveness. In subsequent experiments McFall and his colleagues attempted to study the components that have typically been used and called behavior rehearsal. It was assumed that the basic element of behavior rehearsal was rehearsing the appropriate behavior to be acquired.

The first study conducted by McFall and Marston (1971) investigated the effect feedback plus behavior rehearsal had on enhancing the acquisition of assertive denial responses. Forty two college men and women who were deficient in the skill were divided into four experimental groups: 1) behavior rehearsal plus feedback, 2) behavior rehearsal, 3) placebo, and 4) no treatment control. Results showed the greatest improvement to

be in the behavior rehearsal plus feedback group, but there was no significant difference between behavior rehearsal plus feedback and behavior rehearsal alone. When the two behavior rehearsal groups were combined and compared against placebo and no treatment groups combined a significant difference was found. This study represented the first step toward a systematic investigation of behavior rehearsal treatment technique.

In a related study dealing with behavior rehearsal plus feedback (Hersen, Eisler, Miller, 1974) it was found that the addition of feedback enhanced rapid acquisition of components of assertive behavior. The components involved were eye contact, loudness of voice, speech duration, and behavioral requests.

McFall and Lillesand (1971) built further on the previous model of behavior rehearsal plus feedback. Working with thirty three subjects they added symbolic modeling and therapist coaching. The subjects were divided into three groups: overt rehearsal, covert rehearsal, and no treatment control. Results showed a significant difference between behavior rehearsal groups and controls with the covert training showing greatest improvement. An explanation was offered that external evaluation of the covert procedure protects subjects from any external evaluation, minimizes avoidance behavior, consequently fostering learning. The authors end by concluding that some combination of the two methods might be most appropriate in the training technique.

In a subsequent study by McFall and Twentymen (1973) the effects of rehearsal, modeling, and coaching were evaluated for overall treatment effect. The effect of overt to covert rehearsal were further evaluated.

The results indicated that rehearsal and coaching account for virtually all of the treatment variance. Their contributions were found to be independent and additive. Modeling failed to add appreciably to treatment effects when coupled with rehearsal or rehearsal plus coaching. Results indicate that rehearsal appears to be the mechanism by which newly acquired responses are strengthened, refined, and integrated into the individual's repertoire. Overt and covert rehearsal effects were found to be of equal effectiveness. The difference found between overt and covert rehearsal in the aforementioned experiments were accounted for by the playback procedures used (video versus audio) and not the mode of rehearsal. This experiment further demonstrated the generalization of behavior rehearsal to extra laboratory situations. Lack of generalization has been a criticism of behavior rehearsal (Hersen, Eisler, and Miller, 1973).

From the McFall and Twentymen experiment a distinction was drawn between coaching and modeling. Modeling gives specific behavior from which general principles must be abstracted. Instructional coaching gives conceptual principles for which specific behavioral referents must be generated. The modeling procedure is seen as inductive and the coaching procedure is seen as deductive. It was further stated that coaching provided structured training in cue discrimination while modeling is advantageous in novel situation.

A number of other studies have been conducted comparing the effectiveness of behavior rehearsal alone to behavior rehearsal plus modeling (Young, Rimm, Kennedy, 1973; Perkins, 1972). Most seem to indicate that modeling does little to improve basic behavior rehearsal.

However, some of the studies do show a slight improvement with modeling and none show regression because of modeling.

Thorpe (1975) argues from results of his study which compared systematic desensitization, behavior rehearsal with modeling, and self instructional training that behavior rehearsal which used modeling was not better than self instructional training (S.I.T.) which did not use modeling. His research was criticized by Ramsey (1975) who pointed out that modeling was in fact used in the S.I.T. group. Upon closer inspection it appears that Thorpe's S.I.T. group resembles the simple rehearsal group used by McFall, et.al. No coaching or modeling were employed and subjects rehearsed overtly and covertly assertive responses they constructed themselves in group meetings. Overt rehearsal was defined as practicing out loud while covert rehearsal was defined as silent practice. Further research on the issue of overt and covert rehearsal yield mixed results (Sarazan and Ganza, 1973; Stevens, 1974; Login and Rooney, 1975). The results of these studies seem to indicate that covert rehearsal is better utilized in advance of overt rehearsal. By allowing the subjects to rehearse their responses covertly they can allay some fears inherent in overt rehearsal. It is further evident that some combination of the two methods is more appropriate than either alone.

Subsequent to McFall, et.al. additional research was conducted on the benefits of audio and video aids with behavior rehearsal. Aiduk and Karoley (1975) used forty eight male undergraduates in a study of assertiveness training. The study used four groups: 1) behavior rehearsal, 2) behavior rehearsal plus video feedback, 3) behavior

rehearsal plus video feedback and self evaluation, and 4) a no treatment control group. All behavior rehearsal groups did better than the control groups, but there was no significant difference between any of the behavior rehearsal groups. These results indicate that the use of audio or video feedback did not significantly enhance results. The use of such equipment, then, should be viewed as an option available to the therapist but not essential to the successful utilization of behavior rehearsal as a treatment modality.

Focus of the Study

Because behavior rehearsal is best suited to situations involving skill deficiencies, it would appear that programs dealing with developmentally delayed individuals could benefit from the utilization of behavior rehearsal. A number of studies have demonstrated the usefulness of behavioral techniques for the teaching of skills with developmentally delayed individuals (Schofield and Wong, 1975; Baker, 1973; Roberts and Perry, 1970; Thorne and Schenedling, 1970). The Schofield and Wong study (1975) used an operant procedure with four and five year old boys. The procedure involved twenty three sessions in which the boys practiced activities such as coloring a large poster, puzzles, color matching, a relay race, and others. The boys showed significant improvement in the tasks practiced.

After talking with workers at the Partial Hospitalization program at Blue Ridge Mental Health Clinic in Asheville, NC, and observing the clients there, it was learned that practicing simple tasks is a regular part of the treatment method. However, the training in practice used

in the program is unsystematic. The clients in the program have various skill deficiencies such as how to use the telephone, how to tie a shoe lace, or how to set a table. At various times in the program staff at the clinic require the clients to practice the skill in question to help the client acquire the skill. The difficulty with this practice is that it is not systematic and what effects it has on the client's skill acquisition is not known. Further, a significant amount of time seems to be spent on training simple skills such as use of the telephone or setting a table.

The use of systematic behavior rehearsal would probably decrease the time spent on simple skill training freeing more time for other interactions. The use of behavior rehearsal could have further benefits for individuals working with developmentally delayed individuals. It is an economical procedure in terms of time and money. The procedure can be administered by one person to individuals or groups. Further, a variety of skills can be taught using behavior rehearsal.

The focus of this study was to investigate the relevance of behavior rehearsal with a developmentally delayed (DD) population. Behavior rehearsal has been investigated and proven effective with a variety of populations (Goldstein and Sorcher, 1972; Friedman, 1970; MacDonald, 1975; Leon, 1973; Gittleman, 1965) however, it appears that little if any investigation has been done with a DD population. The study attempted to teach DD individuals at Blue Ridge Mental Health Clinic a specific skill through the use of behavior rehearsal. The skill being taught was how to answer a telephone properly (phone skills). The rationale for teaching phone skills was that the telephone is a general

medium of communication. When a DD individual is left alone or in case of emergency, knowledge of how to use the telephone is vital. Further, a lack of phone skills puts an added burden on caretakers and further isolates DD individuals.

Method

Design

The following experimental design was used:

The dependent variables were 1) the number of points earned by each subject for displaying the two components of phone skills: answering with hello and identifying self and answering the caller's question, 2) the interval of time following the caller's question to the beginning of the subject's response, and 3) ratings on a six point scale of the social effectiveness of the subject's phone skills.

The independent variable was training with behavior rehearsal.

Hypotheses

The following null hypotheses were tested:

- 1) there will be no significant difference, before and after utilization of behavior rehearsal to teach phone skills, in points earned by subjects for displaying the two components of phone skills,
- 2) there will be no significant difference, before and after utilization of behavior rehearsal to teach phone skills, in the interval of time following the caller's question to the beginning of the subject's response, and
- 3) there will be no significant difference between the social effectiveness of the experimental or control subject's phone skills after utilization of behavior rehearsal to teach phone skills.

Materials

Two standard telephones were used for training and testing of skill levels. A cassette tape recorder recorded phone trials before, during, and after training. A point tally sheet was used to measure each subject's ability to say hello, identify self, and respond to the caller's question. An additional tally sheet was used to record the subject's response latency from the end of the caller's question. A rating sheet was used to assess the social effectiveness of each subject's phone skills. An independent rater was used to rate the social effectiveness of each subject's phone skills (copies of the tally and rater sheets are included in Appendix A).

Subjects

The subjects used in the study were sixteen individuals, six men and ten women, who attended the partial hospitalization program at Blue Ridge Mental Health Clinic. The ages of the subjects ranged from eighteen to thirty with most subjects being around age twenty three. These individuals were involved in a group that met three mornings a week. All the subjects were classified developmentally delayed. The criteria for participation was group membership and failure to display both components of phone skills on two out of three trials.

Procedure

Prior to training, caretakers (parents, siblings, etc.) of all subjects were consulted. All caretakers were approached in a standard fashion to gain consent for subject participation (a copy of that approach is included in Appendix B).

Prior to training each subject received four phone calls from the trainer. Each call asked a different question: 1) Is your mother there? 2) Is (subject) there? 3) Is (wrong number) there? and 4) Is this the _____ residence? All phone calls were taped for reliability purposes. Training began when all subjects were called four times.

Training of the experimental group was conducted in four sessions over two days. Each session lasted about thirty minutes. Each training session was administered to the entire group. At the beginning of the first session each subject participated in three mock phone conversations with the trainer. Standard telephones were used for these simulations. A different question was asked in each of the three simulations: 1) Is your mother there? 2) Is (wrong number) there? 3) Is (subject) there? The session began with the trainer addressing the group. "To begin this morning we are all going to play a game. I want you to pretend that you are at your home and that I am calling you. Your mother is home and let's pretend that Gail is your mother. We are going to do this one by one in the other room. Who wants to be first?" All mock phone conversations were taped for reliability purposes. Each subject was given points for successfully displaying the two components of phone skills being taught: 1) ability to answer with "hello" and identify self, and 2) appropriately responding to the caller's question. The points given for the components are as follows: 1) one point for saying "hello", two points for identifying self or location, for a total of three points on the first component, 2) six points for responding to the caller's question for the second component, and a bonus of one point for responding with both components.

The Training Procedure

The subjects were randomly divided into control and experimental groups, having eight members in each group. The training of experimental subjects was done in a group setting at the Blue Ridge Mental Health Clinic and consisted of four steps: 1) rationale for training, 2) description and modeling of the skill, 3) covert rehearsal of the skill, and 4) overt rehearsal of the skill with coaching and feedback. Training involved four sessions. The first session dealt with the first component of phone skills, answering with "hello" and identifying self or location. The second session repeated the procedure with the first component with the addition of the second component, responding to the caller's question. The caller asked the subject if a certain individual was home: "Is John there?" The subject was required to learn to respond with one of the following responses depending on the situation: 1) Yes, I will get him. 2) No, can I take a message? or 3) I'm sorry, you have the wrong number. The third and fourth sessions used the training procedure to practice both components in an attempt to solidify learning. Each session was terminated when all participants were able to perform the components being practiced.

At the end of the last session all subjects again participated in three mock phone conversations with the trainer. The procedure for these calls was the same as the mock phone conversations done at the beginning of the first session. Following training all subjects received four calls at their homes by the trainer. The procedure for these calls was the same as that for the four phone calls that preceded training. Following the completion of the four phone calls to all subjects the

training procedure was readministered to control subjects and all subjects were debriefed.

The trainer recorded points earned for demonstrating the two components on mock phone conversations and recorded response latency from the end of the caller's question. A rater was used to rate the social effectiveness of the subject's phone skills from the taped phone conversations made after training.

The problem of gaining signed consent from the subjects was complex. Many of the subjects were not legally competent and were in the custody of a caretaker while many of the subjects were living with a caretaker but were regarded as competent. Rather than become involved in the legal issue of who was legally responsible for signing a consent form, all caretakers and subjects were consulted and asked to give signed consent. In the case of a subject who was unable to read or write the trainer read the consent statement and asked for a verbal reply. If the subject agreed to participate the trainer signed the subject's name. All this was done in the presence of a S.O.S. staff member who witnessed the signature. A consent form was sent to each caretaker through the subjects. Because some subjects were not reliable in getting the notes home, all caretakers were contacted by phone and advised that the note would be sent. In the event that the caretaker did not receive the consent form the trainer delivered it personally. (Copies of the consent form are included in the Appendix C).

Results

Variance analysis of points earned on mock phone trials before training was not significant ($F = .053$). Results are shown in Table 1 (Table 1 is included in Appendix D).

Variance analysis of response latency before training was not significant ($F = .079$). Results are shown in Table 2 (Table 2 is included in Appendix D).

Variance analysis of points earned on mock phone trials after training yielded significant results ($F = 18.33$; $p < .001$). Results are shown in Table 3 (Table 3 is included in Appendix E).

Variance analysis of response latency after training was not statistically significant ($F = 1.20$). Results are shown in Table 4 (Table 4 is included in Appendix E).

A t-test was computed to determine differences between the means of ratings of social effectiveness on phone calls after training. Results were not statistically significant ($t = .4834$).

See Table 5 for the means and deviations of the two groups for the ratings of social effectiveness, points earned on mock trials, and response latency.

Discussion

Results of the study indicate that the communication patterns of the experimental subjects on mock phone trials were significantly altered after use of behavior rehearsal to teach phone skills. Fourteen subjects answered with "hello" prior to training and eight responded to the caller's question with a quick "yes" or "no". No subject responded

TABLE 5

Means and Standard Deviations
of Points Earned on Mock Phone Trials, Response Latencies, and
Ratings on Social Effectiveness

Group	Mean	S.D.
Points Earned on Mock Phone Trials (pre)		
Experimental	3.8	1.87
Control	4.5	.08
Points Earned on Mock Phone Trials (post)		
Experimental	8.00	1.77
Control	5.4	.09
Response Latencies in Seconds (pre)		
Experimental	2.5	.07
Control	2.3	1.00
Response Latencies in Seconds (post)		
Experimental	1.45	.04
Control	1.80	.99
Ratings of Social Effectiveness		
Experimental	4.33	.97
Control	3.57	.90

before training with the two criteria specified. After training experimental subjects consistently responded with "hello", identified themselves, and answered with longer statements than before. Interestingly all subjects responded to the caller's question quickly before and after training. Very few latencies exceeded five seconds. Most of the subjects have some type of speech problem consequently it is believed that the subjects have developed a quick response pattern. Further, most questions asked of the subjects in their daily lives can usually be answered with "yes" or "no". It would appear that the subject's slurred speech or response set further accounted for the lack of difference between the means of ratings of social effectiveness. However, the experimental group did show a better average on social effectiveness than did the control group.

One criticism of the study could be that all calls before and after training were made by the trainer. The subjects called could have responded in a more relaxed manner than if a total stranger had called. Like other studies of behavior rehearsal (McFall and Marston, 1971; McFall and Lillesand, 1971) there was no demonstration of generalization of effects. A major criticism made by McFall and Lillesand (1971) was that the calls made by confederates were not adequately tapping the skill which was taught in training. Similarly it appears that measuring response latency was not a satisfactory measure of generalization of phone skills.

Further studies might determine the usefulness of measuring the length of the subject's response as an outside measure of generalization. Also, the type of question asked by the caller might be modified to

require something other than yes or no responses, e.g., When will your mother be back?

In summary, the results of the study suggest that behavior rehearsal can help subjects gain skills in the use of the telephone. However, the study was unable to show any generalization of treatment effects or any difference in the ratings of social effectiveness of experimental or control subjects after training in phone skills.

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APPENDIX A

RATING OF TELEPHONE COMMUNICATION SKILLS

The subject's voice tone was:

A horizontal number line with tick marks at 1, 2, 3, 4, 5, and 6. Below the tick mark for 1 is the word "harsh". Below the tick mark for 6 is the word "pleasant".

The subject spoke:

1 2 3 4 5 6
too loudadequate level
too soft

The subject's response was:

[illegible]

The subject responded to the question:

A horizontal number line with arrows at both ends. It has tick marks labeled 4, 1, 2, 3, 4, 5, and 6. Below the tick mark for 4 is the word "slowly". Below the tick mark for 6 is the word "quickly".

The subject made me feel:

A horizontal number line with tick marks at 1, 2, 3, 4, 5, and 6. Above the line, a large curly brace extends from 1 to 6. Below the line, the word "awkward" is positioned under the number 1, and the word "confident" is positioned under the number 6.

I feel the subject's phone skills are:

A horizontal scale with numbers 6 at both ends. Below the left 6 is the text "very poor". Below the right 6 is the text "very good". Above the scale, a horizontal line with vertical end caps extends from the first 6 to the second 6.

RESPONSE LATENCY

Call 1	Call 2	Call 3	Call 4	Name

Approach Used to Gain Consent for Participation
From Custodians

"Hello, my name is Jim Efstation and I'm a counselor at Blue Ridge Mental Health Clinic. I am about to start some training sessions on how to use the telephone with some of the clients who come to the S.O.S. program. It is our hope to be able to teach our clients how to use telephones effectively and thereby improve one important aspect of their social skills. How would you feel about _____ participating in some training on how to use the telephone?" If the caretaker said no, the conversation was terminated: "I understand. Thank you for your time." If the caretaker said yes, the inquirer continued: "We are going to do the training on one group and compare their progress with another group we didn't train. This will give me some indication of how effective this procedure I'm using is. After the first group has been trained we will go ahead and do the training with the other group. _____ might be in either group in that we are just going to divide everybody up at random. You can be sure that no matter which group _____ is in s/he will get training in phone skills. Before I start the training with _____ I would like to get some idea of how they are using the telephone now. To do this I am going to call into your house four times over the next two hours and I want you to prompt _____ to answer the telephone. I am going to use a tape recorder to record our conversation so that I can measure _____'s progress. Of course, these recordings will be destroyed when I'm finished. I would appreciate it if you did not tell _____ that I'm going to call so I can see how he answers normally. I'll explain

all this to _____ at a later time. When I have finished I would be happy to share the results with you and answer any questions you might have." All subjects were approached prior to training and asked if they wished to participate in training. Subjects were informed of the nature of the training and encouraged to participate. Full explanation was given to them after the procedure was finished.

APPENDIX C

Consent Form

The training and study being conducted by Jim Efstation at Blue Ridge Mental Health Clinic has been explained to me adequately and I agree to participate.

The training and study being conducted by Jim Efstation at Blue Ridge Mental Health Clinic has been explained to me and I give permission for _____ to participate.

TABLE 1

Analysis of Variance of Points
Earned on Mock Phone Calls Before Training

Source	<u>df</u>	<u>SS</u>	<u>ms</u>	<u>F</u>	<u>p</u>
Between - groups	1	1.96	1.96	.053	n.s.
Within - groups	14	51.32	3.66		
Total	15	53.28			

TABLE 2

Analysis of Variance of
Response Latency Before Training

Source	<u>df</u>	<u>SS</u>	<u>ms</u>	<u>F</u>	<u>p</u>
Between - groups	1	.09	.0064	.081	n.s.
Within - groups	14	11.08	.079		
Total	15	11.27			

APPENDIX E

TABLE 3

Analysis of Variance of Points
Earned on Mock Phone Calls After Training

Source	<u>df</u>	<u>SS</u>	<u>ms</u>	<u>F</u>	<u>p</u>
Between - groups	1	37.21	37.21	18.33	<.001
Within - groups	14	28.48	2.03		
Total	15	65.69			

TABLE 4

Analysis of Variance of
Response Latency After Training

Source	<u>df</u>	<u>SS</u>	<u>ms</u>	<u>F</u>	<u>p</u>
Between - groups	1	.71	.71	1.20	n.s.
Within - groups	14	8.29	.59		
Total	15	9.00			